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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/784,733	02/14/2001	Dana Stephen Smith	8371-121	2665

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EXAMINER	
THOMPSON, JAMES A	

ART UNIT	PAPER NUMBER
2624	

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/784,733	SMITH ET AL.	
	Examiner	Art Unit	
	James A. Thompson	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 December 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 December 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see page 6, lines 2-5, filed 21 December 2004, with respect to the objections to the specification have been fully considered and are persuasive. The objections to the specification listed in item 2 of the previous office action, dated 16 September 2004, have been withdrawn.

2. Applicant's arguments, see page 6, lines 6-7, filed 21 December 2004, with respect to the objections to the drawings have been fully considered and are persuasive. The objections to the drawings listed in item 1 of said previous office action have been withdrawn.

3. Applicant's arguments, see page 6, lines 8-14, filed 21 December 2004, with respect to the rejection of claim 5 under 35 USC §112, 2nd paragraph have been fully considered and are persuasive. The rejection of claim 5 under 35 USC §112, 2nd paragraph listed in items 3-4 of said previous office action has been withdrawn.

4. Applicant's arguments filed 21 December 2004 have been fully considered but they are not persuasive.

Applicant's arguments on page 6, line 15 to page 7, line 10 are based on the present amendments to the claims, and not the claims as previously filed. The new grounds of rejection based on prior art, which have been necessitated by the present amendments to the claims, is given in detail below.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-4 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taguchi (US Patent 5,937,232) in view of Hirota (US Patent 5,973,802).

Regarding claims 1 and 8: Taguchi discloses a computer-readable medium (figure 9(911) of Taguchi) including software code (column 13, lines 45-46 of Taguchi) that, when executed, results in reception of a user input indicating a color adjustment for a color original (figure 8 and column 12, lines 59-64 of Taguchi); selection of a transform based upon user input (column 13, lines 3-8 of Taguchi); application of the transform to color values to produce adjusted color values (column 13, lines 9-17 of Taguchi); and processing of the adjusted color values for conversion into printer space (column 14, lines 14-17 of Taguchi). In order to perform the printing operation (column 14, lines 14-17 of Taguchi) it is inherent that said adjusted color values are converted into printer space. Otherwise, said adjusted color values will not be in the proper format necessary for printing.

Taguchi does not disclose expressly that said step of selecting is performed automatically and to prevent adverse effects of the color adjustment on subsequent processing.

Hirota discloses automatically selecting a transform, specifically a gamma curve (column 5, lines 40-42 of Hirota). Data is input from a scanner (column 3, lines 20-22 of Hirota) and output by a printer (column 3, lines 22-25 of Hirota). The selection of an appropriate gamma curve will inherently prevent adverse effects of the color adjustment on subsequent processing since the selected gamma curve relates the characteristics of the input scanner to the characteristics of the output printer.

Taguchi and Hirota are combinable because they are from the same field of endeavor, namely the correction of digital input image data so that said image data can be properly output by a digital image data output device. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to select a gamma curve, as taught by Taguchi, automatically, as taught by Hirota. The motivation for doing so would have been that automatic processing is faster and more efficient than human intervention processing. Thus, one of ordinary skill in the art at the time of the invention would clearly see the benefits of applying the teachings of Hirota cited above to the system of Taguchi. Therefore, it would have been obvious to combine Hirota with Taguchi to obtain the invention as specified in claims 1 and 8.

Further regarding claim 1: The computer-readable medium, including the software code, of claim 8 performs the method of claim 1.

Regarding claim 2: Taguchi discloses that the user input indicates a boost of color values (figure 28(curves for C, M and Y) and column 18, lines 8-14 of Taguchi). The user selects from among a plurality of possible γ-correction curves (column 18, lines 8-14 of Taguchi). Said γ-correction curves are also used

for processing scanner image data (column 13, lines 3-8 of Taguchi). The curves shown in figure 28 of Taguchi for the colors C, M and Y are clearly used to boost the color values since the shapes and slopes of said curves show that the γ-values are greater than one for the γ-corrections of the C, M and Y colors.

Regarding claim 3: Taguchi discloses that the user input indicates a reduction of color values (figure 8(curves for R, G and B "After Correction") and column 12, lines 61-67 of Taguchi). The user selects from among a plurality of possible γ-correction curves (column 13, lines 3-6 of Taguchi). The curves shown in figure 8 of Taguchi for the "After Correction" colors R, G and B are clearly used to reduce the color values since the shapes and slopes of said curves show that the γ-values are less than one for the γ-corrections of said R, G and B colors.

Regarding claim 4: Taguchi discloses that the user has an option to press one of a plurality of selection keys to optionally perform various color correction processes and image editing processes (column 12, lines 50-57 of Taguchi). The user is not required to select any of these processes, so by not selecting a process and simply performing printing, the user input indicates no adjustment of color values.

Regarding claim 7: Taguchi discloses that the second scan data is γ-corrected (column 13, lines 60-64 of Taguchi) and displayed next to the first scan (uncorrected) data (figure 14 and column 14, lines 1-4 of Taguchi). The display and updating of the data is controlled based on the pressing of the plane switching key (column 14, lines 4-8 of Taguchi). Therefore, the calculation of the adjusted color values occur at run time.

7. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taguchi (US Patent 5,937,232) in view of Hirota (US Patent 5,973,802) and Stenzel (US Patent 5,737,032).

Regarding claim 5: Taguchi in view of Hirota does not disclose expressly that the transform is one of the group comprising a difference of exponential functions, a second order or higher high order polynomial, a piecewise linear function, and a difference polynomial function.

Stenzel discloses a color correction transform using a piecewise linear function (column 10, lines 2-6 of Stenzel).

Taguchi in view of Hirota is combinable with Stenzel because they are from the same field of endeavor, namely color correction of digital image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a piecewise linear function, as taught by Stenzel, for the color correction transform. The motivation for doing so would have been to permit for changes to the slope of the transfer function at the extremes of the luminance (column 10, lines 6-9 of Stenzel). Therefore, it would have been obvious to combine Stenzel with Taguchi in view of Hirota to obtain the invention as specified in claim 5.

Regarding claim 6: Taguchi in view of Hirota does not disclose expressly that applying the transform further comprises using the color values as indexes into a lookup table.

Stenzel discloses applying a color correction transform using the color values as indexes into a lookup table (column 9, line 63 to column 10, line 1 of Stenzel).

Taguchi in view of Hirota is combinable with Stenzel because they are from the same field of endeavor, namely color correction of digital image data. At the time of the invention,

it would have been obvious to a person of ordinary skill in the art to use a lookup table for the color correction transform, said lookup table being indexed by the color values, as taught by Stenzel. The motivation for doing so would have been to permit additional offsets to the color signals (column 10, lines 11-16 of Stenzel). Therefore, it would have been obvious to combine Stenzel with Taguchi in view of Hirota to obtain the invention as specified in claim 6.

8. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taguchi (US Patent 5,937,232) in view of Hirota (US Patent 5,973,802) and Metz (US Patent 5,666,293).

Regarding claim 9: Taguchi in view of Hirota does not disclose expressly that the computer-readable medium further comprises a downloadable file.

Metz discloses a computer-readable medium that comprises a downloadable file (column 8, lines 36-40 of Metz).

Taguchi in view of Hirota is combinable with Metz because they are from similar problem solving areas, namely computer data processing and control. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a downloadable file as the computer-readable medium, as taught by Metz. The motivation for doing so would have been to be able to upgrade the code (column 8, lines 33-35 and lines 39-40 of Metz). Therefore, it would have been obvious to combine Metz with Taguchi in view of Hirota to obtain the invention as specified in claim 9.

Regarding claim 10: Taguchi in view of Hirota does not disclose expressly that the computer-readable medium further comprises a driver upgrade file.

Metz discloses a computer-readable medium that comprises a driver file (column 17, lines 59-62 of Metz). Said driver file is a part of the operating system (column 17, lines 59-60 of Metz), and can therefore be upgraded (column 8, lines 32-38 of Metz). Said driver file is therefore a driver upgrade file.

Taguchi in view of Hirota is combinable with Metz because they are from similar problem solving areas, namely computer data processing and control. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a driver upgrade file as the computer-readable medium, as taught by Metz. The motivation for doing so would have been to be able to upgrade the code (column 8, lines 33-35 and lines 39-40 of Metz). Therefore, it would have been obvious to combine Metz with Taguchi in view of Hirota to obtain the invention as specified in claim 10.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated

from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Thompson whose telephone number is 571-272-7441. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James A. Thompson
Examiner
Art Unit 2624

JAT
11 May 2005

THOMAS D LEE
PRIMARY EXAMINER